

WHAT IS CLAIMED IS:

1. A method of procuring biological content and their products and/or services listed on an electronic inventory file, wherein said inventory file is stored on at least one electronic storage medium which comprises a plurality of files comprising at least one segregated sundry grouping of target items, comprising:

interfacing by at least one user via user terminals and bi-directional communication connections with at least one target item server which accesses said electronic storage medium, wherein extracts comprising at least one associated biological attribute are generated in said server for said target items in said electronic storage medium via an appropriate request;

inputting a request to generate said extracts;

retrieving said extracts;

and

generating a page comprising at least one hierarchical menu output based on such extracts that provides said at least one user at least one subset of said target items stored on said electronic medium,

wherein said at least one menu sorts said target items in said subset into a user accessible file of target items based on an empirical measure of similarity of said associated biological attributes for said sorted target items, and wherein the at least one hierarchical menu output display page identifies said target items sorted into each said file which have at least one associated biological attribute in common to enable said at least one user to differentiate products and/or services of interest stored on said electronic storage medium and to procure said differentiated products by activating an appropriate graphic user interface (GUI) comprising the displayed output page.

2. The method of claim 1, wherein interfacing comprises interaction with one or more browsers.

3. The method of claim 1, wherein the products and/or services are biologically related products and/or services.
4. The method of claim 1, wherein the biologically related products are selected from the group consisting of cloned nucleic acid inserts comprising a structural gene or transcriptional unit, bioassays, labeling and detection dyes, vectors, antibodies, peptides, nucleic acids, enzymes, nucleotides, buffers, cells media, selection molecules, expression systems, lipids, transfection reagents, electrophoresis products, separation columns, affinity compounds, membranes, ORFs, DNA and RNA primers and proteins.
5. The method of claim 1, wherein each searchable extract for the target items further comprises a unique dataset of named annotated text strings having set elements consisting essentially of at least one unique name, at least one base text, at least one biologically related annotation that applies to the base text, and at least one gene ontology category.
6. The method of claim 5, wherein the searchable extract further comprises separate categories containing one or more loci selected from the group consisting of an organism, nucleotide accession number, related accession number, gene name, gene definition, gene symbol, text summary of the gene product, expression profile, mRNA record, references, length of insert in base pairs, nucleic acid sequence, collection name, collection type, vector name, vector antibiotic, host name, Stealth RNA, siRNA, protein accession number, protein record, amino acid sequence, molecular weight, isoelectric point, protease digestion pattern, domain search, predicted secondary structure, known or predicted tertiary and/or quaternary structure, protein model search, Online Mendelian Inheritance in Man (OMIM) data, product data, metabolic pathway data, single nucleotide polymorphism (SNP) data, SNP map data, locus link ID, Unigene ID and genomic alignment data.
7. The method of claim 6, wherein the loci are associated with annotations or objects which provide hyperlinks to at least one internal and/or external database server.
8. The method of claim 1, wherein the interfacing is via a primary Web page browser in an HTML format.
9. The method of claim 1, wherein the request comprises inputting a parsable biological attribute in a sub-window accessible module for entering one or more keywords, one or more annotations, one or more sequences, or one or more unique identification numbers.

10. The method of claim 9, wherein biological attributes are selected from the group consisting of nucleic acid or amino acid sequence, molecular weight, isoelectric point, metabolic and signal pathway participation, restriction map, organism, protease fragments, epitopes, hydropathic profile, tissue distribution, expression pattern, kinetic constants, binding constants, antagonists, agonists, inverse agonists, linkage maps, substrates, ligands, inhibitors, disease association, alleles, homology, biological function, phosphorylation pattern, sub-cellular localization, glycosylation pattern, post-translational modification pattern, motif consensus, crystal structures, pharmacokinetic properties, pharmacologic properties, and toxicologic properties.
11. The method of claim 9, wherein the keyword module and annotation module process word-for-word searching, Boolean searching, proximity searching, phrase searching, truncation searching or a combination thereof.
12. The method of claim 9, wherein the sequence module processes string searches via an in-house or external Blast server.
13. The method of claim 2, wherein the request comprises a keyword jump consisting of accessing a one or more browsers in which the user is shown appropriate content to retrieve records stored on the server via said browsers.
14. The method of claim 13, wherein the appropriate content is a gene ontology category database.
15. The method of claim 14, wherein the ontology category database comprises groupings selected from the group consisting of a biological process, cell component, and molecular function.
16. The method of claim 15, wherein the ontology category database is updated by accessing one or more databases on one or more public servers.
17. The method of claim 16, wherein accessing the one or more public servers comprises using a Web robot to search the World Wide Web.
18. The method of claim 15, wherein the accessed public server databases are selected from the FlyBase (Drosophila), the Saccharomyces Genome Database, Mouse Genome Database (MGD), The Arabidopsis Information Resource database; WormBase; the EBI GOA project; Rat

Genome Database (RGD); DictyBase; GeneDB S. pombe; GeneDB for protozoa; Genome Knowledge Base; The Institute for Genomic Research (TIGR); Gramene; (i.e., a comparative mapping resource for monocots); Compugen or the Zebrafish Information Network (ZFIN).

19. The method of claim 13, wherein a tabbed sub-window triggers a page load to access the separate keyword jump browser.

20. The method of claim 13, wherein the separate keyword jump browser is indexed by species and displays a hierarchy structure for user-server interfacing.

21. The method of claim 20, wherein the hierarchy structure is a tree navigation structure.

22. The method of claim 9, wherein the generated menu output display provides matches into a result based on the inputted request.

23. The method of claim 22, wherein any one menu item output on the displayed format page consists essentially of a buy option graphic user interface (GUI) and one or more of the following categories selected from the group consisting of a clone identification number, definition of the expressed product, gene symbol, and accession number.

24. The method of claim 23, wherein when the GUI is activated by the user, such activation triggers the content of the page to be transmitted to a purchase database server, further wherein:

i) the purchase server verifies the transmission to be an order for the product associated with the activated GUI, wherein the verified order is assigned a job number by the purchase server;

ii) the purchase server enters the verified order and stores items selected by the user in a shopping cart database of the purchase server; and

iii) the purchase server updates the shopping cart database in real time to synchronize the shopping cart database with the incoming transmissions.

25. The method of claim 24, wherein a user activating the GUI is identified comprising:

a) comparing the customer information in the purchase server with previously-stored customer database information;

b) indicating if a match exists between a customer name field on the transmitted data and the previously-stored customer database information stored on the purchase server.

26. The method of claim 25, further comprising:

c) adding customer information to the purchase server customer database where the comparing step (a) does not produce a match between the customer name field on the transmitted data and the previously-stored customer database information stored on the purchase server.

27. The method of claim 24, further comprising:

a) associating the transmission to the purchase server with a unique session identifier, including embedding the unique session identifier in a universal resource locator (URL);

b) storing the user activity of the user in the purchase server; and

c) associating user activity with the session identifier.

28. The method of claim 23, wherein the clone identification number and accession number function as hyperlinks to separate servers.

29. The method of claim 28, wherein the separate servers are either in-house servers or public servers.

30. The method of claim 29, wherein the public server is maintained by a government institution, a private institution, a college or university, a consortium or a private individual.

31. A server configuration for procuring biological content and their products and/or services listed on an electronic inventory file, wherein said inventory file is stored on at least one electronic storage medium which comprises a plurality of files comprising at least one segregated sundry grouping of target items, comprising:

interfacing by at least one user via user terminals and bi-directional communication connections with at least one target item server which accesses said electronic storage medium, wherein extracts comprising at least

one associated biological attribute are generated in said server for said target items in said electronic storage medium via an appropriate request;

inputting a request to generate said extracts;

retrieving said extracts;

and

generating a page comprising at least one hierarchical menu output based on such extracts that provides said at least one user at least one subset of said target items stored on said electronic medium,

wherein said at least one menu sorts said target items in said subset into a user accessible file of target items based on an empirical measure of similarity of said associated biological attributes for said sorted target items, and wherein the at least one hierarchical menu output display page identifies said target items sorted into each said file which have at least one associated biological attribute in common to enable said at least one user to differentiate products and/or services of interest stored on said electronic storage medium and to procure said differentiated products by activating an appropriate graphic user interface (GUI) comprising the displayed output page.

32. The method of claim 31, wherein the products and services are biologically related products and services.

33. A method of offering a product or service to a user in a remote location comprising:

i) remotely providing an electronic data server to said user;

ii) receiving an input from said user;

iii) processing said input to produce a first output;

iv) interfacing at least one public consortium database with at least one database proprietary to an offerer of said product or service;

v) selecting a first product or service or a link or description of a first product or service to create an extract; and

vi) outputting said extract to said user.

34. The method according to claim 33, wherein said first service is delivering information to said user.

35. The method according to claim 33, wherein the at least one product is a data product.

36. The method according to claim 33, wherein said user is provided remote access comprising an internet link.

37. The method according to claim 33, wherein said user is provided remote access via electromagnetic wave signal.

38. The method according to claim 33, wherein said user is provided remote access via a metallic conductor.

39. The method according to claim 37, wherein said user is provided remote access via a fiber optic cable.

40. The method according to claim 33, further comprising delivering said product or service to said user.

41. The method according to claim 33, further comprising delivering said product or service to a remote location specified by said user.

42. The method according to claim 33, further comprising packing said at least one product.

43. The method according to claim 33, further comprising generating a message and transmitting said message to a recipient other than said user.

44. The method according to claim 43, wherein said message relates to inventory control.

45. The method according to claim 43, wherein said message relates to a manufacturing request or schedule.

46. The method according to claim 43, wherein said message relates to compliance with an internal corporate procedure or regulation.

47. The method according to claim 43, wherein said message relates to governmental procedure or regulation.

48. The method according to claim 43, wherein said message relates to financial control.
49. The method according to claim 43, wherein said message is transmitted to a sales representative.
50. The method according to claim 43, wherein said message is incorporated into a database tracking user activity relating to an offering.
51. The method according to claim 33, further comprising receiving a second input from said user.
52. The method according to claim 51, wherein said second input is in response to said first output.
53. The method according to claim 52, further comprising selecting a second product or service.